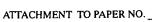
NOTICE OF DRAFTSPERSON'S PATENT DRAWING REVIEW

1. DRAWINGS. 37 CFR 1.84(a): Acceptable categories of drawings: Black ink. Color. Color drawings are not acceptable until petition is granted. Fig(s) Pencil and non black ink not permitted. Fig(s) Photographs. 37 CFR 1.84 (b) 1 full-tone set is required. Fig(s) Photographs not properly mounted (must use brystol board or photographic double-weight paper). Fig(s) Foor quality (half-tone). Fig(s) 3. TYPE OF PAPER. 37 CFR 1.84(e) Paper not flexible, strong, white, and durable. Fig(s) Erasures, alterations, overwritings, interlineations, folds, copy machine marks not accepted. Fig(s) Mylar, velum paper is not acceptable (too thin). Fig(s) 4. SIZE OF PAPER. 37 CFR 1.84(f): Acceptable sizes: 21.0 cm by 27.9 cm (DIN size A4) 21.6 cm by 27.9 cm (8 1/2 x 11 inches) All drawing sheets not the same size. Sheet(s) Drawings sheets not an acceptable margins: Top 2.5 cm Left 2.5 cm Right 1.5 cm Bottom 1.0 cm SIZE: A4 Size Top 2.5 cm Left 2.5 cm Right 1.5 cm Bottom 1.0 cm SIZE: A5 IZE: 11 Margins not acceptable. Fig(s)	8. ARRANGEMENT OF VIEWS. 37 CFR 1.84(i) Words do not appear on a horizontal, left-to-right fashion when page is either upright or turned so that the top becomes the right side, except for graphs. Fig(s) 9. SCALE. 37 CFR 1.84(k) Scale not large enough to show mechanism without crowding when drawing is reduced in size to two-thirds in reproduction. Fig(s) 10. CHARACTER OF LINES, NUMBERS, & LETTERS. 37 CFR 1.84(i) Lines, numbers & letters not uniformly thick and well defined, clean, durable, and black (poor line quality). Fig(s)
Pencil and non black ink not permitted. Fig(s) 2. PHOTOGRAPHS. 37 CFR 1.84 (b) 1 full-tone set is required. Fig(s) Photographs not properly mounted (must use brystol board or photographic double-weight paper). Fig(s) Foor quality (half-tone). Fig(s) Poor quality (half-tone). Fig(s) Paper not flexible, strong, white, and durable. Fig(s) Erasures, alterations, overwritings, interlineations, folds, copy machine marks not accepted. Fig(s) Mylar, velum paper is not acceptable (too thin). Fig(s) 4. SIZE OF PAPER. 37 CFR 1.84(f): Acceptable sizes: 21.0 cm by 29.7 cm (DIN size A4) 21.6 cm by 27.9 cm (8 1/2 x 11 inches) All drawing sheets not the same size. Sheet(s) Drawings sheets not an acceptable margins: Top 2.5 cm Left 2.5 cm Right 1.5 cm Bottom 1.0 cm SIZE: 8 1/2 x 11	 SCALE. 37 CFR 1.84(k) Scale not large enough to show mechanism without crowding when drawing is reduced in size to two-thirds in reproduction. Fig(s) 10. CHARACTER OF LINES, NUMBERS, & LETTERS. 37 CFR 1.84(i) Lines, numbers & letters not uniformly thick and well
2. PHOTOGRAPHS. 37 CFR 1.84 (b) 1 full-tone set is required. Fig(s) Photographs not properly mounted (must use brystol board or photographic double-weight paper). Fig(s) Foor quality (half-tone). Fig(s) Poor quality (half-tone). Fig(s) Paper not flexible, strong, white, and durable Fig(s) Erasures, alterations, overwritings, intertineations, folds, copy machine marks not accepted. Fig(s) Mylar, velum paper is not acceptable (too thin) Fig(s) SIZE OF PAPER. 37 CFR 1.84(f): Acceptable sizes: 21.0 cm by 29.7 cm (DIN size A4) 21.6 cm by 27.9 cm (8 1/2 x 11 inches) All drawing sheets not the same size Sheet(s) Drawings sheets not an acceptable size. Fig(s) Fig(s)	Scale not large enough to show mechanism without crowding when drawing is reduced in size to two-thirds in reproduction. Fig(s) 10. CHARACTER OF LINES, NUMBERS, & LETTERS. 37 CFR 1.84(i) Lines, numbers & letters not uniformly thick and well
Photographs not properly mounted (must use brystol board or photographic double-weight paper). Fig(s) Foor quality (half-tone). Fig(s) 3. TYPE OF PAPER. 37 CFR 1.84(e) Paper not flexible, strong, white, and durable. Fig(s) Erasures, alterations, overwritings, interlineations, folds, copy machine marks not accepted. Fig(s) Mylar, velum paper is not acceptable (too thin). Fig(s) 4. SIZE OF PAPER. 37 CFR 1.84(f): Acceptable sizes: 21.0 cm by 29.7 cm (DIN size A4) 21.6 cm by 29.7 cm (8 1/2 x 11 inches) All drawing sheets not the same size. Sheet(s) Drawings sheets not an acceptable size. Fig(s) 5. MARGINS. 37 CFR 1.84(g): Acceptable margins: Top 2.5 cm Left 2.5 cm Right 1.5 cm Bottom 1.0 cm SIZE: A4 Size Top 2.5 cm Left 2.5 cm Right 1.5 cm Bottom 1.0 cm SIZE: 8 1/2 x 11	reproduction. Fig(s) 10. CHARACTER OF LINES, NUMBERS, & LETTERS. 37 CFR 1.84(i) Lines, numbers & letters not uniformly thick and well
photographic double-weight paper). Fig(s) Foor quality (half-tone). Fig(s) Poor quality (half-tone). Fig(s) Paper not flexible, strong, white, and durable. Fig(s) Erasures, alterations, overwritings, interlineations, folds, copy machine marks not accepted. Fig(s) Mylar, velum paper is not acceptable (too thin). Fig(s) 4. SIZE OF PAPER. 37 CFR 1.84(f): Acceptable sizes: 21.0 cm by 29.7 cm (DIN size A4) 21.6 cm by 27.9 cm (8 1/2 x 11 inches) All drawing sheets not the same size. Sheet(s) Drawings sheets not an acceptable size. Fig(s) 5. MARGINS. 37 CFR 1.84(g): Acceptable margins: Top 2.5 cm Left 2.5 cm Right 1.5 cm Bottom 1.0 cm SIZE: 8 1/2 x 11	Fig(s)
Foor quality (half-tone). Fig(s) 3. TYPE OF PAPER. 37 CFR 1.84(e) Paper not flexible, strong, white, and durable. Fig(s) Erasures, alterations, overwritings, interlineations, folds, copy machine marks not accepted. Fig(s) Mylar, velum paper is not acceptable (too thin). Fig(s) 4. SIZE OF PAPER. 37 CFR 1.84(f): Acceptable sizes: 21.0 cm by 29.7 cm (DIN size A4) 21.6 cm by 27.9 cm (8 1/2 x 11 inches) All drawing sheets not the same size. Sheet(s) Drawings sheets not an acceptable size. Fig(s) 5. MARGINS. 37 CFR 1.84(g): Acceptable margins: Top 2.5 cm Left 2.5 cm Right 1.5 cm Bottom 1.0 cm SIZE: 8 1/2 x 11	10. CHARACTER OF LINES, NUMBERS, & LETTERS. 37 CFR 1.84(i) Lines, numbers & letters not uniformly thick and well
Paper not flexible, strong, white, and durable. Fig(s) Erasures, alterations, overwritings, interlineations, folds, copy machine marks not accepted. Fig(s) Mylar, velum paper is not acceptable (too thin). Fig(s) 4. SIZE OF PAPER. 37 CFR 1.84(f): Acceptable sizes: 21.0 cm by 29.7 cm (DIN size A4) 21.6 cm by 27.9 cm (8 1/2 x 11 inches) All drawing sheets not the same size. Sheet(s) Drawings sheets not an acceptable size. Fig(s) 5. MARGINS. 37 CFR 1.84(g): Acceptable margins: Top 2.5 cm Left 2.5 cm Right 1.5 cm Bottom 1.0 cm SIZE: A4 Size Top 2.5 cm Left 2.5 cm Right 1.5 cm Bottom 1.0 cm SIZE: 8 1/2 x 11	Lines, numbers & letters not uniformly thick and well
Fig(s) Erasures, alterations, overwritings, interlineations, folds, copy machine marks not accepted. Fig(s) Mylar, velum paper is not acceptable (too thin). Fig(s) 4. SIZE OF PAPER. 37 CFR 1.84(f): Acceptable sizes: 21.0 cm by 29.7 cm (DIN size A4) 21.6 cm by 27.9 cm (8 1/2 x 11 inches) All drawing sheets not the same size. Sheet(s) Drawings sheets not an acceptable size. Fig(s) 5. MARGINS. 37 CFR 1.84(g): Acceptable margins: Top 2.5 cm Left 2.5 cm Right 1.5 cm Bottom 1.0 cm SIZE: 8 1/2 x 11	
Erasures, alterations, overwritings, interlineations, folds, copy machine marks not accepted. Fig(s) Mylar, velum paper is not acceptable (too thin). Fig(s) 4. SIZE OF PAPER. 37 CFR 1.84(f): Acceptable sizes: 21.0 cm by 29.7 cm (DIN size A4) 21.6 cm by 27.9 cm (8 1/2 x 11 inches) All drawing sheets not the same size. Sheet(s) Drawings sheets not an acceptable size. Fig(s) 5. MARGINS. 37 CFR 1.84(g): Acceptable margins: Top 2.5 cm Left 2.5 cm Right 1.5 cm Bottom 1.0 cm SIZE: 8 1/2 x 11	Fig(s) 14-17, 19-37
Mylar, velum paper is not acceptable (too thin). Fig(s) 4. SIZE OF PAPER. 37 CFR 1.84(f): Acceptable sizes: 21.0 cm by 29.7 cm (DIN size A4) 21.6 cm by 27.9 cm (8 1/2 x 11 inches) All drawing sheets not the same size. Sheet(s) Drawings sheets not an acceptable size. Fig(s) 5. MARGINS. 37 CFR 1.84(g): Acceptable margins: Top 2.5 cm Left 2.5 cm Right 1.5 cm Bottom 1.0 cm SIZE: A4 Size Top 2.5 cm Left 2.5 cm Right 1.5 cm Bottom 1.0 cm SIZE: 8 1/2 x 11	
Fig(s) 4. SIZE OF PAPER. 37 CFR 1.84(1): Acceptable sizes: 21.0 cm by 29.7 cm (DIN size A4) 21.6 cm by 27.9 cm (8 1/2 x 11 inches) All drawing sheets not the same size. Sheet(s) Drawings sheets not an acceptable size. Fig(s) 5. MARGINS. 37 CFR 1.84(g): Acceptable margins: Top 2.5 cm Left 2.5 cm Right 1.5 cm Bottom 1.0 cm SIZE: A4 Size Top 2.5 cm Left 2.5 cm Right 1.5 cm Bottom 1.0 cm SIZE: 8 1/2 x 11	11. SHADING. 37 CFR 1.84(m)
4. SIZE OF PAPER. 37 CFR 1.84(f): Acceptable sizes: 21.0 cm by 29.7 cm (DIN size A4) 21.6 cm by 27.9 cm (8 1/2 x 11 inches) All drawing sheets not the same size. Sheet(s) Drawings sheets not an acceptable size. Fig(s) 5. MARGINS. 37 CFR 1.84(g): Acceptable margins: Top 2.5 cm Left 2.5 cm Right 1.5 cm Bottom 1.0 cm SIZE: A4 Size Top 2.5 cm Left 2.5 cm Right 1.5 cm Bottom 1.0 cm SIZE: 8 1/2 x 11	Solid black areas pale. Fig(s) Solid black shading not permitted. Fig(s)
21.0 cm by 29.7 cm (D1N size A4) 21.6 cm by 27.9 cm (8 1/2 x 11 inches) All drawing sheets not the same size. Sheet(s) Drawings sheets not an acceptable size. Fig(s) 5. MARGINS. 37 CFR 1.84(g): Acceptable margins: Top 2.5 cm Left 2.5 cm Right 1.5 cm Bottom 1.0 cm SIZE: A4 Size Top 2.5 cm Left 2.5 cm Right 1.5 cm Bottom 1.0 cm SIZE: 8 1/2 x 11	Shade lines, pale, rough and blurred. Fig(s)
All drawing sheets not the same size. Sheet(s) Drawings sheets not an acceptable size. Fig(s) 5. MARGINS. 37 CFR 1.84(g): Acceptable margins: Top 2.5 cm Left 2.5 cm Right 1.5 cm Bottom 1.0 cm SIZE: A4 Size Top 2.5 cm Left 2.5 cm Right 1.5 cm Bottom 1.0 cm SIZE: 8 1/2 x 11	12. NUMBERS, LETTERS, & REFERENCE CHARACTERS.
Sheet(s) Dtawings sheets not an acceptable size. Fig(s) 5. MARGINS. 37 CFR 1.84(g): Acceptable margins: Top 2.5 cm Left 2.5cm Right 1.5 cm Bottom 1.0 cm SIZE: A4 Size Top 2.5 cm Left 2.5 cm Right 1.5 cm Bottom 1.0 cm SIZE: 8 1/2 x 11	37 CFR 1.84(p) Numbers and reference characters not plain and legible.
5. MARGINS. 37 CFR 1.84(g): Acceptable margins: Top 2.5 cm Left 2.5 cm Right 1.5 cm Bottom 1.0 cm SIZE: A4 Size Top 2.5 cm Left 2.5 cm Right 1.5 cm Bottom 1.0 cm SIZE: 8 1/2 x 11	Fig(s)
Top 2.5 cm Left 2.5 cm Right 1.5 cm Bottom 1.0 cm SIZE: A4 Size Top 2.5 cm Left 2.5 cm Right 1.5 cm Bottom 1.0 cm SIZE: 8 1/2 x 11	Figure legends are poor. Fig(s) Numbers and reference characters not oriented in the
SIZE: A4 Size Top 2.5 cm Left 2.5 cm Right 1.5 cm Bottom 1.0 cm SIZE: 8 1/2 x 11	same direction as the view. 37 CFR 1.84(p)(1)
Top 2.5 cm Left 2.5 cm Right 1.5 cm Bottom 1.0 cm SIZE: 8 1/2 x 11	Fig(s)
SIZE: 8 1/2 x 11	English alphabet not used. 37 CFR 1.84(p)(2) Figs
	Numbers, letters and reference characters must be at least
	.32 cm (1/8 inch) in height. 37 CFR 1.84(p)(3)
Top (T) Left (L) Right (R) Bottom (B)	Fig(s) 13. LEAD LINES. 37 CFR 1.84(q)
6. VIEWS. 37 CFR 1.84(h)	Lead lines cross each other. Fig(s)
REMINDER: Specification may require revision to	— Lead lines missing. Fig(s)
correspond to drawing changes. Partial views. 37 CFR 1.84(h)(2)	 NUMBERING OF SHEETS OF DRAWINGS. 37 CFR 1.84(t) Sheets not numbered consecutively, and in Arabic numerals
Brackets needed to show figure as one entity.	beginning with number 1. Sheet(s)
Fig(s)	15. NUMBERING OF VIEWS. 37 CFR 1.84(u)
✓ Views not labeled separately or properly. Fig(s) 34 - 36	Views not numbered consecutively, and in Arabic numerals, beginning with number 1. Fig(s)
Enlarged view not labeled separetely or property.	16. CORRECTIONS. 37 CFR 1.84(w)
Fig(s)	Corrections not made from prior PTO-948 dated
 SECTIONAL VIEWS. 37 CFR 1.84 (h)(3) Hatching not indicated for sectional portions of an object. 	17. DESIGN DRAWINGS. 37 CFR 1.152
Fig(s)	Surface shading shown not appropriate. Fig(s)
Sectional designation should be noted with Arabic or	Solid black shading not used for color contrast. Fig(s)
Roman numbers. Fig(s)	1 ig(s)
•	•
COMMENTS	
COMMENTS	
•	

DATE 10/14/99 TELEPHONE NO. (703) 308-0366





INFORMATION ON HOW TO EFFECT DRAWING CHANGES

1. Correction of Informalities--37 CFR 1.85

File new drawings with the changes incorporated therein. The application number or the title of the invention, inventor's name, docket number (if any), and the name and telephone number of a person to call if the Office is unable to match the drawings to the proper application, should be placed on the back of each sheet of drawings in accordance with 37 CFR 1.84(c). Applicant may delay filing of the new drawings until receipt of the Notice of Allowability (PTOL-37). Extensions of time may be obtained under the provisions of 37 CFR 1.136. The drawing should be filed as a separate paper with a transmittal letter addressed to the Drawing Processing Branch.

2. Timing for Corrections

Applicant is required to submit acceptable corrected drawings within the three-month shortened statutory period set in the Notice of Allowability (PTOL-37). If a correction is determined to be unacceptable by the Office, applicant must arrange to have acceptable corrections resubmitted within the original three-month period to avoid the necessity of obtaining an extension of time and paying the extension fee. Therefore, applicant should file corrected drawings as soon a possible.

Failure to take corrective action within set (or extended) period will result in ABANDONMENT of the Application.

3. Corrections other than Informalities Noted by the Drawing Review Branch on the Form PTO-948

All changes to the drawings, other than informalities noted by the Drawing Review Branch, **MUST** be approved by the examiner before the application will be allowed. No changes will be permitted to be made, other than correction of informalities, unless the examiner has approved the proposed changes.